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FLightR: An r package for reconstructing animal paths from solar geolocation loggers

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Abstract

© 2017 British Ecological Society.Solar geolocators are relatively cheap and simple tools which are widely used to study the migration of animals, especially birds. The methods to estimate the geographic positions from the light-intensity patterns collected by these loggers, however, are still under development. The accurate reconstruction of the annual schedules and movement patterns of individual animals requires analytical methods which provide estimates of daily locations, distances between the locations and the directions of movement, with measures of their uncertainty. The new r package FLightR meets all these requirements. It enables refined and statistically validated estimations of movement patterns of birds. Here, we present main features of this advanced package.

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Keywords

Bird migration, Geolocators, Movement ecology, Solar geolocation, Template fitting, Tracking